

PRE-APPEAL BRIEF

The claimed invention provides a protections system and method for first and second communication networks interconnected by an Automatic Switched Transport Network (ASTN) having an ASTN control plane. Currently, claims 24-37 and 39-58 are pending with independent claims 24 and 58 standing finally rejected under 35 U.S.C. §103(a) as being obvious over U.S. Pat. No. 7,321,932 ("Monga") in view of U.S. Pat. No. 7,345,991 ("Shabtay"). However, the rejections are in error because they are based on an improper interpretation of the claim language. Additionally, the conclusory nature of the rejections, which are unsupported by the cited references, evidences clear error. Therefore, all rejections should be overturned.

Claim 24 recites, "[an] ASTN control plane configured to implement signaling and automatic polling mechanisms to switch traffic from the first and second primary terminal nodes to the first and second secondary terminal nodes responsive to the failed interconnection between the first and second primary terminal nodes." The cited references do not teach or suggest "signaling and automatic polling mechanisms." Applicant's specification clearly defines the function of the signaling and automatic polling mechanisms. For example, "[signaling] and automatic polling mechanisms (for example, with heartbeat protocols) ... ensure that the secondary stands in for the primary in case the communication and/or traffic towards the primary is lost." Spec., p. 17, ll. 9-11.

Using the heartbeat protocol between primary and secondary NB, the mechanism is able to verify when the primary is restored and supports a switch back protocol (for example of the "not revertive/revertive" type). When the primary is reset, the protection group can decide whether to cancel the restoration path (if there is no other failure) or support another OTF restoration.

Spec., p. 13, ll. 3-7. In other words, the claimed signaling and automatic polling mechanisms are used to detect when a node has failed, as well as to verify when the node has been restored. Additionally, the signaling and automatic polling mechanisms support a switch back

protocol to switch communications between the corresponding primary and secondary terminal nodes in the respective first and second networks.

The Examiner alleges that the Link State Advertisements (LSAs) disclosed in Monga are the same thing as the claimed signaling and automatic polling mechanisms. However, this assertion is conclusory and wholly unsupported by Monga. Monga does not teach, suggest, or even *hint* that the LSAs perform the same functionality as the claimed signaling and automatic polling mechanisms. In fact, Monga does not teach or suggest that the LSAs perform any type of polling function. In contrast, Monga expressly discloses that the LSAs are data records that hold information regarding the state of a link or device. The LSAs are stored in memory at an Automatic Switched Optical Network (ASON) device and distributed in messages to OSA-enabled user devices disposed in a user domain.

[B]because link state advertisements are stored by the ASON device rather than in the user domain, the ASON device can detect a failure of its directly attached OSA-enabled user and invalidate the link state advertisement for the OSA-enabled user, thus allowing peer users to more quickly detect the failure of the OSA-enabled user (otherwise, the peer users would need to wait for a link state advertisement timeout to detect the failure, which, in OSPF, is typically a MaxAge of 1 hour).

See Monga, col. 12, line 62 – col.. 13, ln. 2 (emphasis added). In other words, when the network ASON device detects the failure of an attached OSA-enabled user device (or the link between them), the ASON device updates the stored LSA for the failed OSA-enabled user device to indicate the failure. Thereafter, the peer OSA-enabled devices are notified via the updated LSA of the failed OSA-enabled user device.

The LSAs of Monga are not the claimed “signaling and automatic polling mechanisms.” They do not “switch traffic from … first and second primary terminal nodes to … first and second secondary terminal nodes responsive to the failed interconnection between the first and second primary terminal nodes,” as claimed. In fact, the disclosed LSAs do not perform any function that effects traffic flow between two networks connected by an ASTN control plane, as claimed. Rather, as evidenced above, the LSAs simply carry information regarding the failure of OSA-

OSA-enabled user device, or link associated with that device, to other peer OSA-enabled devices. And no one of ordinary skill in the art would ever equate an informational message comprising informational data to the claimed “signaling and automatic polling mechanisms.”

Notwithstanding these facts, the Examiner alleges that “in the broadest reasonable interpretation, a poll is simply a message being sent.” *Final Office Action*, p. 2, ll. 3-4. However, this assertion is as unsupportable as it is incorrect. If one were to take the Examiner’s allegation as true, then virtually all messages communicated across a network would be polling messages – including those that are used to set up and tear down communication sessions. No one skilled in the art would ever consider such messages to be polling mechanisms to effect switching between primary and secondary nodes in two different networks. Indeed, the proffered interpretation of the claim language is unreasonable, it contradicts the well-understood meaning of a polling mechanism, and ignores Applicant’s use of that term in the claims and in the specification. This is improper.

Although the Examiner must give the claims their broadest reasonable interpretation, it is well-settled that the Examiner is required to construe the claim limitations in a manner that is consistent with the claim language. Where the claims do not explicitly define the terms of a claim, the Examiner must construe the claim limitations in a manner that is consistent with the specification. In this case, the Examiner has done neither.

Claim 24 is clear and the specification unambiguously supports that language. Monga does not teach or suggest the above-cited limitation, and Shabtay is not alleged by the Examiner to remedy this deficiency (and indeed, it does not). Therefore, since both references alone fail to teach or suggest the same limitation of claim 24, any combination of the references necessarily fails to teach that same limitation. For at least this reason, the §103(a) rejection of claim 24 should be overturned.

Additionally, however, neither reference teaches or suggests, “the criteria for switching the traffic to the secondary communication circuit are based on alarm monitoring on a client side

of the ASTN network,” as recited in claim 24. Again, the Examiner relies solely on Monga to support the assertion that this particular limitation is known, and in particular, the passage of Monga cited above. However, this passage discloses only the proactive distribution of updated informational messages to inform other users that a peer user has failed. It does not teach or suggest anything about the criteria for switching the traffic between nodes in two different networks connected by an ASTN plane, or about alarm monitoring on a client side of the network. In fact, there is no mention in this passage (or anywhere else in Monga) of switching criteria or client-side alarm monitoring of the ASTN network, as claimed.

The Examiner additionally cites column 18, lines 22-29 of Monga to support the assertion that Monga discloses the above-cited limitation. However, this second passage of Monga also utterly fails to support the allegation. Instead, this particular passage discloses that the ASON device (i.e., the network device) monitors the connections with the OSA-enabled user devices that are connected to it, and then actively disables a device to prune it from the peer group upon detecting a failure with that device.

The ASON device in Monga is not a client device - it is a network device. Thus, whatever Monga discloses with respect to monitoring, it occurs only within the realm of the ASON network and not on a client side of an ASTN network, as claimed. Further, the alleged ability of the ASON device to monitor the “loss or degradation of [a] connection” means nothing. There are many different ways that one network device can detect the loss or degradation of a connection to another network device that have nothing to do with monitoring for an alarm, as claimed.

Notwithstanding these facts, the Examiner alleges in the Advisory Action that the claims do not recite limitations relied on to distinguish the claims over the art. This statement is inaccurate. As seen in the quoted limitations above, the features that distinguish the claims from the art are indeed recited explicitly in the claims.

Therefore, for at least the foregoing reasons, independent claim 24 and its dependent claims are non-obvious over the cited references. And, since claim 58 is the corresponding method claim reciting similar language, it, too, is non-obvious over the cited art.

Finally, the Examiner cites some secondary references in addition to Monga and Shabtay to support §103(a) rejections to the dependent claims. However, all dependent claims are necessarily patentable over the cited art by virtue of their dependency on claim 24. Further, the additional references do not remedy the shortcomings of Monga and Shabtay with respect to the rejections.

A *prima facie* case of obviousness requires the Examiner to show at least a suggestion for all of the features of a claim in the prior art. See *In re Wada and Murphy*, Appeal 2007-3733, citing *CFMT, Inc. v. Yieldup Intern. Corp.*, 349 F.3d 1333, 1342 (Fed. Cir. 2003) and *In re Royka*, 490 F.2d 981, 985 (CCPA 1974)). The Examiner's analysis need not seek out precise teachings directed to the specific subject matter of the claim but can take into account the inferences and the creative steps that a person of ordinary skill in the art would employ. See *KSR Int'l Co. v. Teleflex Inc.*, 127 S. Ct. 1727, 1741 (2007). However, an obviousness rejection cannot be sustained by mere conclusory statements; there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness. *Id.*, quoting *In re Kahn*, 441 F. 3d 977, 988 (Fed. Cir. 2006). In the instant case, the references do not render the claims obvious and the Office has not met its burden. Applicant therefore respectfully requests that the Panel overturn all rejections and allow all pending claims.

Respectfully submitted,

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Dated: January 26, 2012